



(5') 1 SDLEQERRAKEKLQEQQ  
18 SDLEQDRLAKEKLQEQQ  
35 SDLEQERLAKEKLQEQQ  
52 SDLEQERRAKEKLQEQQ  
69 SDLEQERRAKEKLQEQQ  
86 SDLEQDRLAKEKLQEQQ  
103 SDLEQERRAKEKLQEQQ  
120 SDLEQERRAKEKLQEQQ  
137 SDLEQERLAKEKLQEQQ  
154 SDLEQERRAKEKLQEQQ  
171 SDLEQERRAKEKLQEQQ  
188 SDLEQERRAKEKLQEQQ  
205 RDLEQ

210 RKADTKKNLERKKEHGDILAEDLYGRLEIP  
240 AIELPSENERGYYPHQSSLPQDNRGNSRD  
270 SKEISIIIEKTNRESITTNVEGRRDIHKGHL  
300 EEKKGSGIKPEQKEDKS 316 (3') (SEQ ID NO:31)

FIGURE 1

(5') 1 AAAGCGATCTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
52 AAAGCGATTTAGAACAAAGATAGACTTGCTAAAGAAAAGTTACAAGAGCAGC  
103 AAAGCGATTTAGAACAAAGAGAGACCTTGCTAAAGAAAAGTTGCAAGAACAAAC  
154 AAAGCGATCTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
205 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
256 AAAGCGATTTAGAACAAAGATAGACTTGCTAAAGAAAAGTTACAAGAGCAGC  
307 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
358 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
409 AAAGCGATTTAGAACAAAGAGAGACCTTGCTAAAGAAAAGTTGCAAGAACAAAC  
460 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
511 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAACAAAC  
562 AAAGCGATTTAGAACAAAGAGAGACGTGCTAAAGAAAAGTTGCAAGAGCAGC  
613 AAAGAGATTTAGAACAA  
630 AGGAAGGCTGATACGAAAAAAAATTTAGAAAGAAAAAGGAACATGGAGAT  
681 ATATTAGCAGAGGATTTATATGGTCGTTTAGAAATACCACTATAGAACTT  
732 CCATCAGAAAAATGAACGTGGATATTATATACCAATCAATCTTCTTTACCT  
783 CAGGACAAACAGAGGGAATAGTAGAGATTCCAAGGAAATATCTATAATAGAA  
834 AAACAAATAGAGAACTCTATTACAACAAATGTTGAAGGACGAAGGGATATA  
885 CATAAAGGACATCTTGAAGAAAAAGAAAGATGGTTCAATAAAACCAGAACAA  
936 AAAGAAGATAAATCT 950 (3') (SEQ ID NO: 32)

FIGURE 2

<sup>E</sup>  
RDELFNELLNSVDVNGEVKENILEESQVND~~Q~~DIFNSLVKSVQQEQQ  
HNVEEKVEESVEENDEESVEENVEENVEENDDGSVASSVEESI  
ASSVDESIDSSIEENVAPTVEEIVAPTVEEIVAPSVVEKCAPSVE  
ESVAPSVEESVAEMLKER (SEQ ID NO: 24)

FIGURE 3

5' GAA TTC CGT GAT GAA CTT TTT AAT GAA TTA TTA AAT AGT GTA GAT  
 GTT AAT GGA GAA GTA AAA GAA AAT ATT TTG GAG GAA AGT CAA GTT AAT  
 GAG GAT ATT TTT AAT AGT TTA GTA AAA AGT GTT CAA CAA GAA CAA CAA  
 CAC AAT GTT GAA GAA AA AGT TGA AGA AAG TGT AGA AGA AA ATG ACG  
 AAG AAA GTG TAG AAG AAA ATG TAG AAG AAA ATG TAG AAG AAA ATG  
 ACG ACG GAA GTG TAG CCT CAA GTG TTG AAG AAA GTA TAG CTT CAA GTG  
 TTG ATG AAA GTA TAG ATT CAA GTA TTG AAG AAA ATG TAG CTC CAA CTG  
 TTG AAG AAA TCG TAG CTC CAA CTG TTG AAG AAA TTG TAG CTC CAA GTG  
 TTG TAG AAA AGT GTG CTC CAA GTG TTG AAG AAA GTG TAG CTC CAA GTG  
 TTG AAG AAA GTG TAG CTG AAA TGT TGA AGG AAA GGA ATT C 3' (seq ID No: 33)

FIGURE 4

|  |                                  |
|--|----------------------------------|
| <u>NSRDSKEISIIIEKTNRESIITINVEGRDIIHK</u> | <u>LSA-TER (see ID NO: 23)</u>   |
| <u>DELFNELLNSVDVNGEVKENIILEESQ</u>       | <u>729S-NRI (see ID NO: 26)</u>  |
| <u>LEESQVNDDDIFNSLVKSVQEQQHNV</u>        | <u>729S-NRII (see ID NO: 27)</u> |
| <u>VEKCAPSVEESVAPSVEESVAEMLKER</u>       | <u>729S-Rep (see ID NO: 28)</u>  |

FIGURE 5

NUCLEOTIDE SEQUENCE OF THE LSA GENE  
5' END

(NON-CODING 5' END)

1 AAAGTATACATCTTCCTTCTTTACTTCTTAAA

(CODING 5' END, UNIQUE)

33 ATGAAACATATTTTGTACATATCATTTTACTTTATCCTTGTTAATTTATTG  
84 ATATTTTCATATAAATGGAAAGATAATAAAGAATTCTGAAAAAGATGAAATCA  
135 TAAAATCTAACTTGAGAAGTGTTCTTCAAATTCTAGGAATCGAATAAATGA  
186 GGAAATCACGAGAAGAAACACGTTTTATCTCATAATTCATATGAGAAAAC  
237 AAAAATAATGAAAATAATAAATTTTTTCGATAAGGATAAAGAGTTAACGATGT  
288 CTAATGTAAAAAATGTGTCACAAACAAATTTCAAAGTCTTTTAAGAAATCT  
339 TGGTGTTTCAGAGAATATATTCCTTAAAGAAAATAAATTAAATAAGGAAGGG  
390 AAATTAATTGAACACATAATAAATGATGATGACGATAAAAAAAATATATTA  
441 AAGGGCAAGACGAAAACAGACAAGAAGATCTTGAAGAAAAAGCA

(CODING 5' END, repetitive)

492 GCTAAAGAAAAGTTACAGGGGCAACAAAGCGATTGAGAACAAGAGAGACGT  
543 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACTT  
594 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT  
645 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACTT  
696 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT  
747 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT  
798 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACTT  
849 GCTAAAGAAAAGTTACAAGAGCAGCAAAGCGATTTAGAACAAGATAGACTT  
900 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT  
951 GCTAAAGAAAGGTTGCAAGAACAACAAAGCGATTTAGA 988 (SEQ ID NO: 34)

FIGURE 6

(SEQ ID NO: 35)

(SEQ ID NO: 36)

(SEQ ID NO: 36)

(SEQ ID NO: 36)

NUCLEOTIDE SEQUENCE OF THE LSA GENE  
3' END

(CODING 3' END, REPETITIVE)

```
1  CAAGAACAACAAAGCGATCTAGAACAAGAGAGACGT
37 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGATAGACTT
88 GCTAAAGAAAAGTTACAAGAGCAGCAAAGCGATTTAGAACAAGAGAGACTT
139 GCTAAGAAAAGTTGCAAGAACAACAAAGCGATCTAGAACAAGAGAGACGT
190 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT
241 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGATAGACTT
292 GCTAAAGAAAAGTTACAAGAGCAGCAAAGCGATTTAGAACAAGAGAGACGT
343 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT
394 GCTAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACTT
445 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT
496 GCTAAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT
547 GCTAAGAAAAGTTGCAAGAACAACAAAGCGATTTAGAACAAGAGAGACGT
598 GCTAAAGAAAAGTTGCAAGAGCAGCAAAGAGATTTAGAACAA
```

(CODING 3' END, UNIQUE)

```
640 AGGAAGGCTGATACGAAAAAAATTTAGAAAGAAAAAAGGAACATGGAGAT
691 ATATTAGCAGAGGATTTATATGGTCGTTTAGAAATACCAGCTATAGAACTT
742 CCATCAGAAAATGAACGTGGATATTATATACCACATCAATCTTCTTTACCT
793 CAGGACAACAGAGGGAATAGTAGAGATTCCAAGGAAATATCTATAATAGAA
844 AAAACAAATAGAGAATCTATTACAACAAATGTTGAAGGACGAAGGGATATA
895 CATAAAGGACATCTTGAAGAAAAGAAAGATGGTTCAATAAAACCAGAACAA
946 AAAGAAGATAAATCTGCTGACATACAAAATCATACATTAGAGACAGTAAAT
997 ATTTCTGATGTTAATGATTTTCAAATAAGTAAGTATGAGGATGAAATAAGT
1048 GCTGAATATGACGATTCATTAATAGATGAAGAAGAAGATGATGAAGACT
1099 TAGACGAATTTAAGCCTATTGTGCAATATGACAATTTCCAAGATGAAGAAA
1150 ACATAGGAATTTATAAAGAACTAGAAGATTTGATAGAGAAAAATGAAAATT
1201 TAGATGATTTAGATGAAGGAATAGAAAAATCATCAGAAGAATTATCTGAAG
1252 AAAAAATAAAAAAAGGAAAGAAATATGAAAAACAAAGGATAATAATTTTA
1303 AACCAAATGATAAAAGTTTGTATGATGAGCATATTAAAAAATATAAAAAATG
1354 ATAAGCAGGTTAATAAGGAAAAGGAAAAATTCATAAAATCATTGTTTCATA
1405 TATTTGACGGAGACAATGAAATTTTACAGATCGTGGATGAGTTATCTGAAG
1456 ATATAACTAAATATTTTATGAACTATAA (stop) (SEQ ID NO: 39)
```

(NON-CODING 3' END)

1485 AAGGTTATATATTT 1498

FIGURE 8

LSA.3'.ALL -> 1-phase Translation

DNA sequence 1496 b.p. (SEQ ID NO: 40) (SEQ ID NO: 41) linear  
CAAGAACAACAA ... GGTATATATTT

|   |           |  |
|---|-----------|--|
| 1 / 1   | 31 / 11   |  |
| (SEQ ID NO: 42) CAA GAA CAA CAA AGC GAT CTA GAA CAA GAG AGA CGT GCT AAA GAA AAG TTG CAA GAA CAA |           |  |
| (SEQ ID NO: 43) gln glu gln gln ser asp leu glu gln gln glu arg ala lys glu lys leu gln glu gln |           |  |
| 61 / 21   | 91 / 31   |  |
| CAA AGC GAT TTA GAA CAA GAT AGA CTT GCT AAA GAA AAG TTA CAA GAG CAG CAA AGC GAT                 |           |  |
| gln ser asp leu glu gln asp arg leu ala lys glu lys leu gln glu gln ser asp                     |           |  |
| 121 / 41  | 151 / 51  |  |
| TTA GAA CAA GAG AGA CTT GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT CTA GAA CAA                     |           |  |
| leu glu gln glu arg leu ala lys glu lys leu gln glu gln ser asp leu glu gln                     |           |  |
| 181 / 61  | 211 / 71  |  |
| GAG AGA CGT GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT TTA GAA CAA GAG AGA CGT                     |           |  |
| glu arg arg ala lys glu lys leu gln glu gln ser asp leu glu gln glu arg arg                     |           |  |
| 241 / 81  | 271 / 91  |  |
| GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT TTA GAA CAA GAT AGA CTT GCT AAA GAA                     |           |  |
| ala lys glu lys leu gln glu gln ser asp leu glu gln asp arg leu ala lys glu                     |           |  |
| 301 / 101   | 331 / 111 |  |
| AAG TTA CAA GAG CAG CAA AGC GAT TTA GAA CAA GAG AGA CGT GCT AAA GAA AAG TTG CAA                 |           |  |
| lys leu gln glu gln ser asp leu glu gln glu arg arg ala lys glu lys leu gln                     |           |  |

FIGURE 9A

FOOT 20 E9600000

|   |            |  |
|---|------------|--|
| 1261 / 421  | 1291 / 431 |  |
| AAA GGA AAG AAA TAT GAA AAA ACA AAG GAT AAT AAT TTT AAA CCA AAT GAT AAA AGT TTG |            |  |
| lys gly lys lys tyr glu lys thr lys asp lys asn phe lys pro asn asp lys ser leu |            |  |
| 1321 / 441  | 1351 / 451 |  |
| TAT GAT GAG CAT ATT AAA AAA TAT AAA AAT GAT AAG CAG GTT AAT AAG GAA AAG GAA AAA |            |  |
| tyr asp glu his ile lys lys tyr lys asn asp lys gln val asn lys glu lys glu lys |            |  |
| 1381 / 461  | 1411 / 471 |  |
| TTC ATA AAA TCA TTG TTT CAT ATA TTT GAC GGA GAC AAT GAA ATT TTA CAG ATC GTG GAT |            |  |
| phe ile lys ser leu phe his ile phe asp gly asp asn glu ile leu gln ile val asp |            |  |
| 1441 / 481  | 1471 / 491 |  |
| GAG TTA TCT GAA GAT ATA ACT AAA TAT TTT ATG AAA CTA TAA AAG GTT ATA TAT         |            |  |
| glu leu ser glu asp ile thr lys tyr phe met lys leu                             |            |  |

\* Strike from Fig.

FIGURE 9D

LSN.3'STOP -> 1-phase Translation

DNA sequence 1482 b.p. CAAGAACAACAA ... ATGAAACTATATAA linear

(seq ID No: 44) (seq ID No: 45)

|   |   |  |
|---|---|--|
| 1 / 1   | 31 / 11   |  |
| (seq ID No: 46)   | CAA GAA CAA CAA AGC GAT CTA GAA CAA GAG AGA CGT GCT AAA GAA AAG TTG CAA GAA GAA |  |
| (seq ID No: 47)   | gln glu gln ser asp leu glu gln glu arg ala lys glu lys leu gln glu gln         |  |
| 61 / 21   | 91 / 31   |  |
| CAA AGC GAT TTA GAA CAA GAT AGA CTT GCT AAA GAA AAG TTA CAA GAG CAG CAA AGC GAT |   |  |
| gln ser asp leu glu gln asp arg leu ala lys glu lys leu gln glu gln ser asp     |   |  |
| 121 / 41  | 151 / 51  |  |
| TTA GAA CAA GAG AGA CTT GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT CTA GAA CAA     |   |  |
| leu glu gln glu arg leu ala lys glu lys leu gln glu gln ser asp leu glu gln     |   |  |
| 181 / 61  | 211 / 71  |  |
| GAG AGA CGT GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT TTA GAA CAA GAG AGA CGT     |   |  |
| glu arg arg ala lys glu lys leu gln glu gln ser asp leu glu gln glu arg arg     |   |  |
| 241 / 81  | 271 / 91  |  |
| GCT AAA GAA AAG TTG CAA GAA CAA AGC GAT TTA GAA CAA GAT AGA CTT GCT AAA GAA     |   |  |
| ala lys glu lys leu gln glu gln ser asp leu glu gln asp arg leu ala lys glu     |   |  |
| 301 / 101   | 331 / 111   |  |
| AAG TTA CAA GAG CAG CAA AGC GAT TTA GAA CAA GAG AGA CGT GCT AAA GAA AAG TTG CAA |   |  |
| lys leu gln glu gln ser asp leu glu gln glu arg ala lys glu lys leu gln         |   |  |

FIGURE 10A

|      |     |     |     |      |     |                |                |
|------|-----|-----|-----|------|-----|----------------|----------------|
| 1321 | /   | 441 |     | 1351 | /   | 451            |                |
| TAT  | GAT | GAG | CAT | ATT  | AAA | TAT            | AAA            |
| tyr  | asp | glu | his | ile  | lys | tyr            | lys            |
| 1381 | /   | 461 |     | 1411 | /   | 471            |                |
| TTC  | ATA | AAA | TCA | TTG  | TTT | GAC            | ATA            |
| phe  | ile | lys | ser | leu  | phe | ile            | lys            |
| 1441 | /   | 481 |     | 1471 | /   | 491            |                |
| GAG  | TTA | TCT | GAA | GAT  | ATA | ACT            | AAA            |
| glu  | leu | ser | glu | asp  | ile | thr            | lys            |
|      |     |     |     |      |     | tyr            | phe            |
|      |     |     |     |      |     | met            | lys            |
|      |     |     |     |      |     | leu            | leu            |
|      |     |     |     |      |     | <del>asn</del> | <del>asp</del> |
|      |     |     |     |      |     | <del>gln</del> | <del>ile</del> |
|      |     |     |     |      |     | <del>val</del> | <del>ile</del> |
|      |     |     |     |      |     | <del>tyr</del> | <del>tyr</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
|      |     |     |     |      |     | <del>val</del> | <del>val</del> |
|      |     |     |     |      |     | <del>glu</del> | <del>glu</del> |
|      |     |     |     |      |     | <del>lys</del> | <del>lys</del> |
|      |     |     |     |      |     | <del>asn</del> | <del>asn</del> |
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